





# The Merchants' Association

Of San Francisco

## SPECIAL REPORT

of the

Merchants' Association Bureau  
of Inspection

SHOWING DIFFICULTIES ENCOUNTERED IN SECURING  
COMPLIANCE WITH SPECIFICATIONS IN  
WORK ON PUBLIC BUILDINGS.

# The Merchants' Association

Of San Francisco

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SAN FRANCISCO, November 21, 1910.

*To the Members of the Merchants' Association and the Special Subscribers to its Bureau of Inspection:*

The following letter, previously transmitted to the Board of Public Works, is now submitted to the members of the Merchants' Association and to its special subscribers, in order to illustrate some of the difficulties encountered by its Bureau of Inspection of Public Improvements. It may be said that few contracts have been carried out without some difficulty arising, though usually admitting of easy adjustment, but in this case the specifications and orders of the Architect were flagrantly violated by both the City Inspector and the Contractor. The letter is as follows:

San Francisco, California, November 7, 1910.

To the Honorable the Board of Public Works of the City and County of San Francisco:

Gentlemen:

The Merchants' Association, through its Committee on Public Affairs in charge of its Bureau of Inspection of Public Improvements, takes this opportunity to make a formal protest against the manner in which work has been conducted and the quality of labor and materials employed in constructing the Franklin School on Eighth Street, near Harrison, and now respectfully requests that further work be stopped immediately and not be allowed to resume till all defective work has been satisfactorily repaired or entirely rebuilt so as to comply with the specifications for this work. The Bureau further wishes to state that it will protest the payment of any money to the contractor, now due or to become due, until all defective work hereinafter specified shall have been properly repaired or replaced as above stated. The Bureau submits the following résumé of the progress of work on this job, detailing the many violations of the material terms of the specifications and protests against same made to the Architect and members of the Board of Public Works and to the City Inspectors by representatives of the Bureau. As noted below, both the contractors and the City Inspectors have allowed work to proceed in a manner that was an open and direct violation of the orders of the Architect and the terms of the specifications, and we believe will continue to do so unless some stringent methods are adopted to more effectively control the work. Further, if work is allowed to proceed as is now being done, the difficulty of making repairs in an effective and workmanlike manner will be so great as to make it very doubtful of its being properly done. Again, the added cost of making such repairs may be used by the contractors as a reason why they should not be compelled to make such repairs as are necessary. No such excuse can be allowed to interfere with the doing of this work according to specifications. All defective work must be made good and, when this has been done, the city will still have lost in value and quality a very considerable amount from what was called for in the specifications.

Now follow extracts from reports of our Bureau of Inspection showing clearly the poor character of much of the work done to date. Note that almost the entire complaint is directed towards the character of the concrete work done on the walls and foundations. Since defective concrete is a very treacherous material, the defects noted are very serious and may endanger the safety of the children who in future will occupy this building.

**Aug. 12th:** Work on forms started without any City Inspector on the job; quality of work and materials very poor; form lumber second-hand stuff. Reported to City Architect, who promised to put an inspector on by the 15th.

**Aug. 15th:** Working on forms; material and workmanship poor; complaint made to City Inspector Templeton, but nothing was done.

- Aug. 22nd:** Bureau Engineer on job with City Architect. Pointed out defects in forms, namely, poor, worn-out, second-hand lumber containing many holes and excessively loose joints. City Inspector Templeton promised that all holes would be tightly calked before concrete would be poured, which was only partly done.
- Aug. 23rd:** No improvement in character of form work or material.
- Aug. 30th:** No improvement in character of form work; a few pieces of new lumber on job, but were used on heating-room walls only.
- Sept. 1st:** Still using old, inferior material for forms. Steel in footings carelessly placed and not securely tied. President of Board of Public Works on job. Complaint made to him about character of form work and he gave notice that all defective work would have to be made good.
- Sept. 14th:** Building forms for stair-wells; same inferior quality of lumber used.
- Sept. 15th:** Footings being poured. Inspector Miller at mixer; output O. K., but no one was watching the placing. City Inspector Templeton in contractor's temporary office engaged in conversation with some people there and could not watch placing from where he was.
- Sept. 22nd:** Pouring footings and east stair-well; two city inspectors on job; forms at stair-well had not been properly calked, Templeton's promise to have same done notwithstanding, and much grout had leaked out.
- Sept. 26th:** Pouring east stair-well; excess of sand being used; complaint made to both city inspectors and excess of sand cut down.
- Sept. 29th:** Pouring Eighth Street front of building and walls of heating room. Work very badly handled, concrete dumped in and little or no tamping was done till vigorous complaint was entered by bureau inspectors. City Inspector Templeton had been doing nearly all of the tamping, whereas the contractor should have provided at least two men to do the same. Tamping as finally done little better than none at all, the extra men for tamping not being provided, and the inspector and contractor were permitting work to be done in a most slovenly manner. Rock had been allowed to jam between steel and forms, and in other places the rock and the fines had separated and had not been tamped or spaded together. Only tool for this purpose was a piece of plank and a  $\frac{5}{8}$ -inch steel bar. Dirt and trash kicked off runways into forms not cleaned out until complaint was made by Bureau Inspector. Steel was not accurately placed nor securely set and in some portions was as much as 2 inches to 3 inches out of place. Columns between windows not poured in one operation, and the resultant work is so bad and full of voids that several will have to be torn down and rebuilt. No adequate calking of forms had been done and much grout had leaked out. Complained of the above to Supervising Inspector Wicks, but he did not consider objections as being material.
- Sept. 30th:** President of Board of Public Works on the job. Complaint made to him of manner in which work had been done, and he again warned the contractor that all defective work would have to be done over again.
- Oct. 5th:** City Inspector in office reading morning paper when Bureau Inspector arrived, but came out as soon as he saw the latter. Preparing to finish south stair-well to second floor level. Complaint made about the inaccurate way in which the steel was set.
- Oct. 6th:** Bureau Engineer visited job with President of Board of Public Works and City Architect and made further complaint about character of work. City Inspector Templeton in office on arrival of party.
- Oct. 7th:** Concreted balance of stair-well; work poorly handled. Cast iron columns delivered at job, but no sample test bars yet delivered to City Chemist for test. Later, October 14th, test bars marked for another job were reported as being for this job. Complaint made to City Architect about failure to get sample test bars as soon as columns were cast.

**Oct. 17th:** Stripping of forms on outside of east stair-well showed several bad voids due to careless work. A reinforced concrete column west side of stair-well full of voids at base and at point half way up; should be condemned and rebuilt. Had not been built in one operation. Front walls and furnace room walls stripped and some bad voids had been immediately patched with mortar. In one spot, steel was showing on exterior of wall.

**Oct. 25th:** Cast-iron column set partly in concrete wall tilted  $\frac{3}{4}$  inch out of plumb. Should be cut free from concrete wall and reset. Outside of south stair-well stripped and showed a very large loose pocket of rock at north end. Contractor's men tried to board this up to keep it from being seen, but were not successful. So much poor work at this end of stair-well that entire end should be torn down and rebuilt. Work here is outrageously bad. Commissioner Newsom on job and this work was pointed out to him and complaint made of same.

**Oct. 26th:** Bad voids on exterior walls of south stair-well had been patched over with mortar late in the afternoon, and before the arrival of President of Board of Public Works on job. Interior walls not stripped.

**Oct. 28th:** City Architect ordered forms of interior of south stair-well stripped so as to facilitate examination of loose rock pockets revealed by stripping outer forms. Stripping showed that loose rock pockets extended clear through wall and were more extensive than at first shown. Contractor had prepared mortar to patch up voids, but was ordered not to do so. However, pocket was patched over by mortar next day.

Examination of walls shows so many pockets of loose rock that a minute examination is necessary to determine if walls are safe. Floor joists set for second story and floor being laid. Protested to City Architect against allowing work of any kind to go ahead till defective concrete had been taken out and replaced. Work going on on second story form for east stair-well, using old lumber again, which was a direct violation of orders of City Architect, who had forbidden further use of such lumber. Complaint entered against this work and City Architect again gave positive orders that no old lumber would be allowed on forms and so instructed City Inspector Brower, who had succeeded Inspector Templeton.

**Nov. 1st:** All work on building stopped by order of the Board of Public Works, pending repairs to defective concrete. A careful examination of concrete work ordered made by Architect's Department.

**Nov. 2nd:** Work allowed to resume on frame work by order of the Board based on the City Architect's recommendation that frame would not interfere with the repair of defective work. Protest made against resumption of work to President of Board of Public Works and to City Architect on ground that further progress with framing of building would interfere with proper and necessary repairs to concrete, and particularly to the repair of concrete columns on east stair well and resetting of cast iron column that was out of plumb.

**Nov. 3rd:** Contractor ordered to cut out all defective concrete to prepare same for examination, but with the exception of a little cutting on south stair-well, nothing was done.

**Nov. 4th:** Work on building east stair-well forms still going on, and work begun on south stair-well. This was contrary to orders of City Architect, and he did not know of it till protest was made to him. Building of latter forms will interfere with making of proper repairs on south stair-well. City Inspector Brower on job.

As a part of the foregoing are submitted herewith several photographs to more fully illustrate the character of the work.



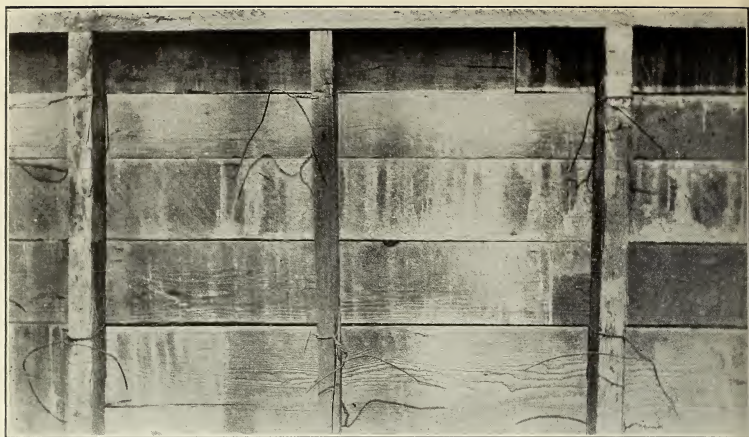


Exhibit "A": Showing old lumber and large joints in forms. September, 1910.

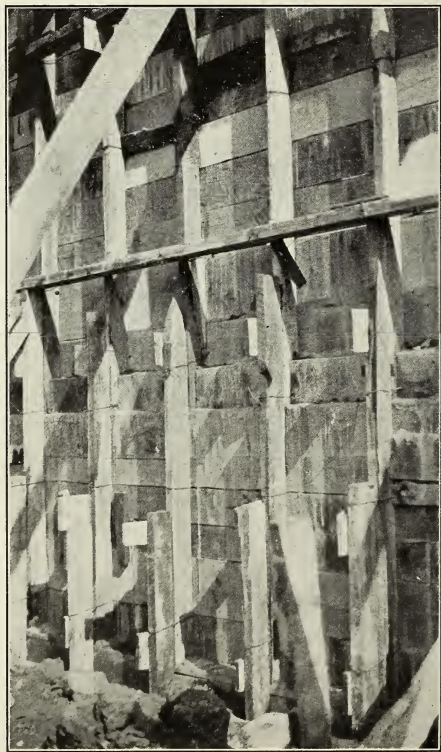


Exhibit "B": Same as "A." Shows leakage and waste of cement through loose joints; concrete poured half way up. October, 1910.



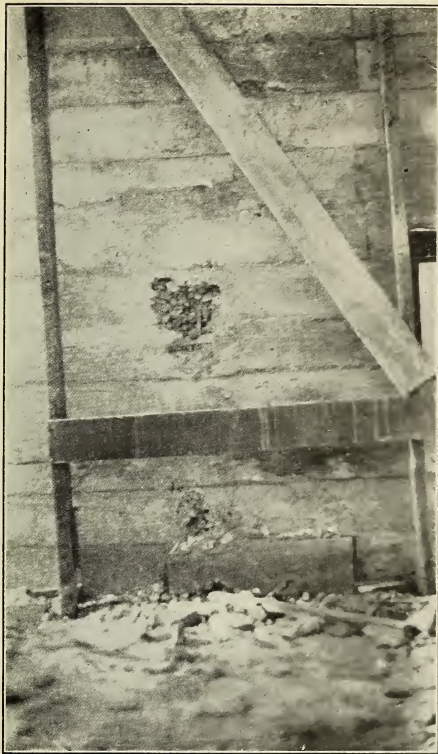


Exhibit "C": Typical rock pocket in heating room wall. Cast iron column that is  $\frac{3}{4}$  inch out of plumb is just to right and on other side of wall. Note loose rock and voids at base of column, October 26, 1910.



Exhibit "D": Showing voids and result of improper workmanship on south side of east stair well, October 17, 1910.

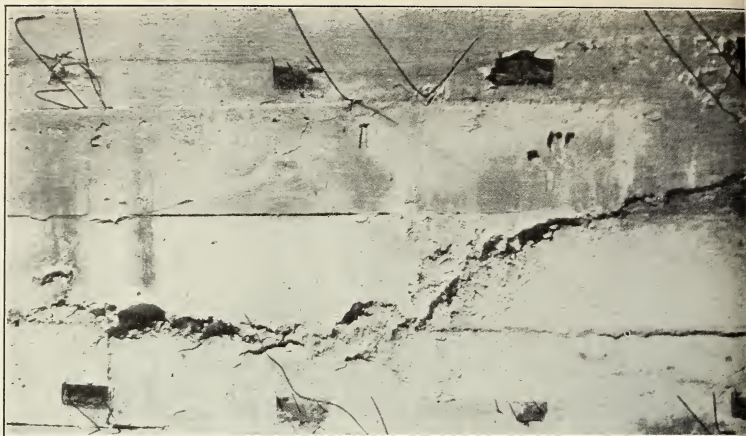


Exhibit "E": Showing voids and results of improper workmanship on south side of east stair-well.  
October 17, 1910.

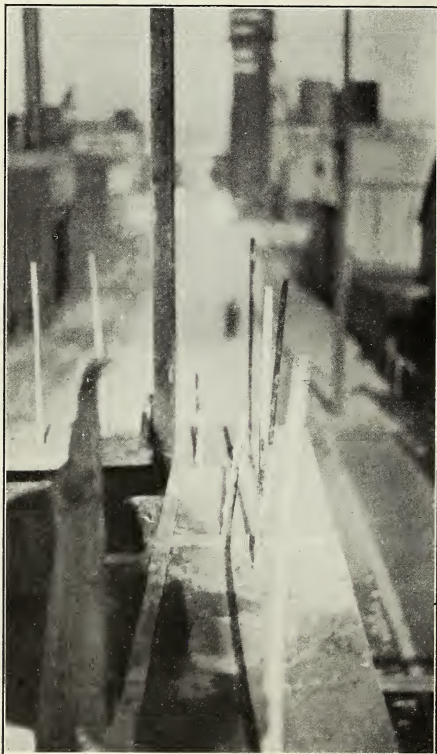


Exhibit "F": Showing steel reinforcing as placed in east stair-well. Vertical steel bars should be 1 inch from left-hand edge of wall, instead of about 4 inches as shown. October 26, 1910.

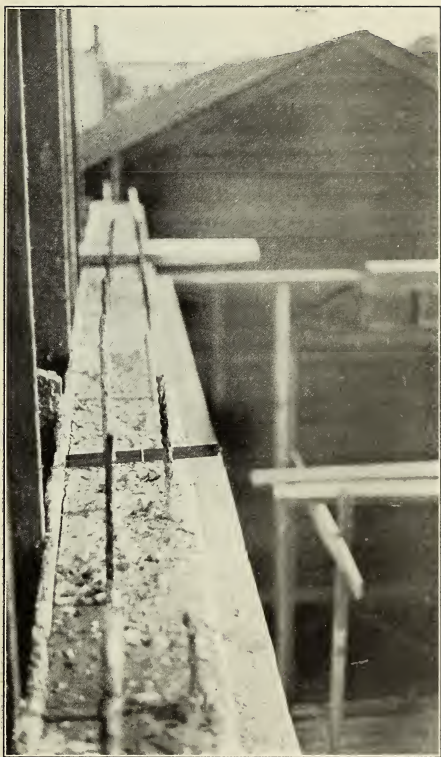


Exhibit "G": Showing steel reinforcing as placed in east stair-well. Steel should be 1 inch from each wall, instead of 2 inches to 3 inches. October 26, 1910.



Exhibit "H": Showing loose rock pockets at north end of south stair-well. Voids are more extensive than here shown, because a thin skin of grout covers same. October 26, 1910.



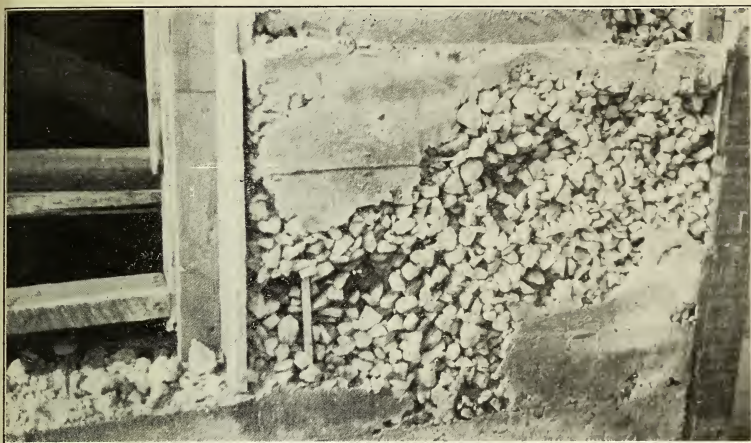


Exhibit "T": A closer view of "H" and showing how a thin skin of grout covers loose rock pockets. This rock is so loose that it can be taken out by hand.

Since there are many pockets of loose rock on the front, or Eighth-Street face of building, and also in the walls of the heating room, that are plastered over with a thin coat of mortar, and therefore cannot be properly examined, it is not possible to state at this date just what amount of work must be done over. However, the character of the work is fully shown on the following portions:

(1) Column on west side of east stair-well should be rebuilt, as it contains many voids at base and about half way up.

(2) North end of south stair-well should be rebuilt. The loose rock pockets here are so extensive as to make patching impossible.

(3) Two columns between windows on Eighth-Street front are so full of voids as to preclude patching, and should be rebuilt. There are other similar columns that must be further examined before same can be said to be passible.

(4) In all the walls there are extensive rock pockets that have been plastered over and that must be opened up and dug out before the walls can be passed upon.

(5) In some places the bases of the footings show extensive loose rock pockets, and it will be necessary to dig the earth away from the same in order to make a proper examination.

Therefore, we respectfully ask your Honorable Board to pass a formal resolution ordering all work to be stopped on this building until a thorough examination has been made and all defective work rebuilt so as to comply with the specifications.

Respectfully submitted,

COMMITTEE ON PUBLIC AFFAIRS,  
OF THE MERCHANTS' ASSOCIATION OF SAN FRANCISCO

GEO. C. BOARDMAN,

Chairman,

L. M. KING, Secretary.

The important facts in the above are: (1) The contractor was notified well in advance by the President of the Board of Public Works and the Bureau Inspectors that defective work would not be accepted, and would have to be done over again if necessary; (2) that both the City Inspector and the contractor violated the orders of the architect when form work was resumed, using old lumber for same, and when thin mortar patches were placed over defective portions of concrete in order to conceal the defects; (3) that the Bureau's request to stop all work on building, first made on October 28th and acted upon favorably November 1st by the Board but rescinded on the 2nd, was more than justified, because (a) immediately work was resumed on forms, using old lumber, the use of which had been prohibited by the architect, (b) the contractor made practically no attempt to cut away all defective work as ordered by the architect. In fact, there was a stock of old lumber piled against the front wall, and the Bureau had frequently requested that it be moved away so as to permit an examination of the base and footings where faulty work was known to exist, but not one stick was removed. There is no other way to control a job but to stop work entirely when a contractor does as above.

Throughout all of the above, the President of the Board of Public Works and the Architect have endeavored to get the job under control.

The above letter was submitted to the Board of Public Works on November 7th, and thereupon the following resolution was immediately passed by the Board:

RESOLUTION NO. 7877 (Second Series): RESOLVED that the Architect of this Board be, and is hereby notified and directed to stop all work on the Franklin School Building until otherwise notified by this Board.

PASSED by the following vote:

Ayes: Commissioners Newsom and Casey.

Absent: Commissioner Broderick.

PASSED November 7, 1910, by the Board of Public Works.

Page 11975, Vol. U 1, Minutes of Board of Public Works.

About a week later a third, and this time competent Inspector, was sent to the job, and the cutting away of defective work has been going on since. Exhibits "J" and "K" show a portion of the faulty work noted in paragraphs (3) and (4) of the last page of the letter, and which had to be cut out; Exhibit "L" illustrates defects noted in paragraph (5). The prospects now are that fairly efficient repairs to faulty work will be made, though it is too early to guarantee results.



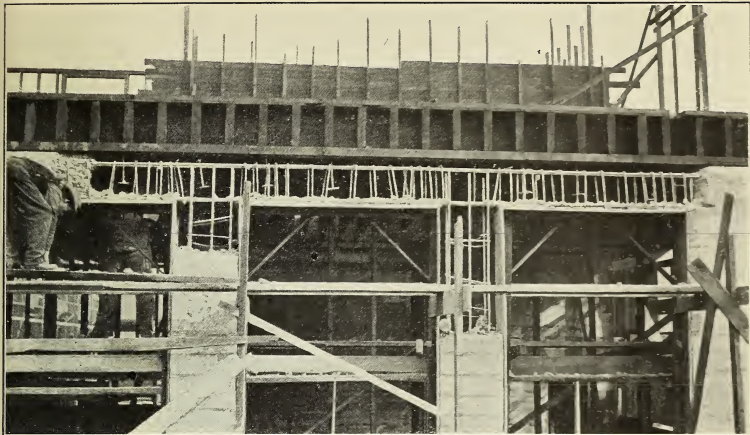


Exhibit "J": Showing a portion of the faulty work noted in paragraphs (3) and (4), and which had to be cut out.



Exhibit "K": Showing how extensive was the faulty work noted in paragraphs (3) and (4).

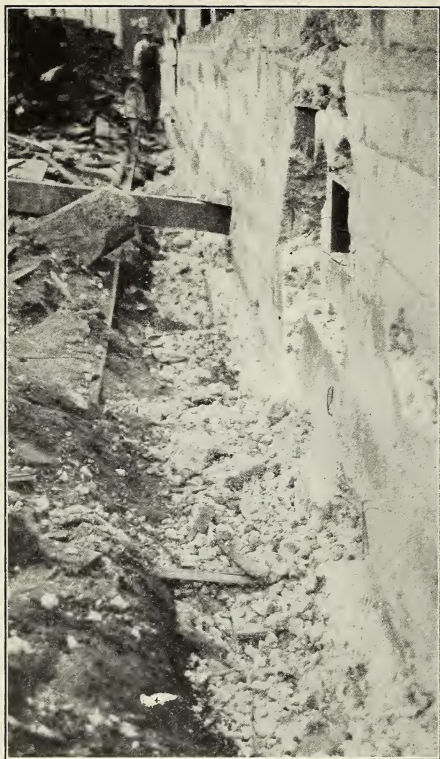


Exhibit "L": Illustrates defects noted in paragraph (5).

As was to be expected, much pressure has been brought to bear to have the protests of the Bureau set aside or withdrawn, but this in no way affects the attitude of the Bureau. The work must be done honestly and according to the plans and specifications. Particularly should every means be taken to make a school building safe, and no right-minded person can hold any other view. The Bureau takes the position that safe construction for the benefit of the school children is of greater importance than hastening the completion of the building.

COMMITTEE ON PUBLIC AFFAIRS  
OF THE MERCHANTS' ASSOCIATION OF SAN FRANCISCO.

L. M. KING, Secretary.

GEO. C. BOARDMAN, Chairman.

ADDENDA:

December 2, 1910.

Since the foregoing letter was written and the comments added thereto, work on replacing or repairing defective portions of the concrete walls and foundations is being carried on in as good a manner as is practicable under the existing conditions, and the Bureau feels justified in saying that the walls, etc., will be reasonably well constructed and safe, though not as good or strong as if properly constructed in the first place.



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